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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,996	09/19/2005	Joji Fujiwara	MAT-8744US	1009
53473	7590	03/24/2008		
RATNERPRESTIA			EXAMINER	
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VALLEY FORGE, PA 19482				
			ART UNIT	PAPER NUMBER
			2813	
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			03/24/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/549,996

**Applicant(s)**

FUJIWARA ET AL.

**Examiner**

LATANYA CRAWFORD

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 4, 7 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8 and 10-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 09/19/2005

## DETAILED ACTION

1. This office action is in response to the correspondence filed on 2/28/2008.

Examiner acknowledges that claims 4, 7 & 9 have been cancelled.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

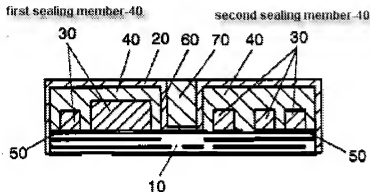
A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 5, 8-18, & 20-21** are rejected under 35 U.S.C. 102(e) as being anticipated by **Tsuneoka (US Pub no. 2004/0252475 A1)**.

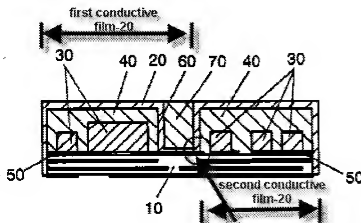
**Regarding claim 1**, Tsuneoka et al. discloses a module component comprising: a substrate **10** a partition **70** formed on the substrate **10** (**fig. 5**), the partition **70** having a predetermined height to divide the substrate **10** into a plurality of circuit blocks (**fig. 5; [0023], lines 14-16; [0025], lines 1-3**); a first sealing member **40** (**first portion of element 40, on the left in fig. 5**) covering the plurality of circuit blocks; a second sealing member **40** (**second portion of element 40, on the right in fig. 5**) covering a second circuit block of the plurality of circuit blocks;

**FIG. 5**



a first conductive film 20 (first portion of element 20, on the left in fig. 5) covering at least a surface of the first sealing member 40 (first portion of element 40, on the left of in fig. 5) and a second conductive film 20 (second portion of element 20, on the right in fig. 5; [0023]) covering at least a surface of the second sealing member; wherein the plurality of circuit blocks are electrically shielded individually ([0026], lines 4-7) and the partition is made of a composition of a resin and a conductive material [0028].

**FIG. 5**



**Regarding claim 8**, Tsuneoka et al. teaches the partition **70** has a conductive wall **20** in a direction vertical to the substrate **10** (**view fig. 5**).

**Regarding claim 9**, Tsuneoka et al. teaches the partition is formed by stacking at least one metal film **20** and ,resin **70**; and the metal film is formed to be parallel with the longitudinal direction of the partition **70** and to be vertical to the substrate **10** (**fig 5**).

**Regarding claim 10**, Tsuneoka et al. teaches the partition **70** has resin at least one side surface thereof (**view fig. 5**).

**Regarding claim 11**, Tsuneoka et al. teaches the partition **70** is positioned inside the substrate **10**, and has a planar shape of one of a circle or polygon (**fig. 6**).

**Regarding claim 12**, Tsuneoka et al. teaches the partition **70** is positioned out of contact with an outer edge of the substrate **10** (**fig. 5**).

**Regarding claim 13**, Tsuneoka et al. teaches the partition **70** has a planar shape of a letter T (**fig. 4**).

**Regarding claim 14**, Tsuneoka et al. teaches the first conductive film and the second conductive film **20** include metal **[0024]** **fig. 5**.

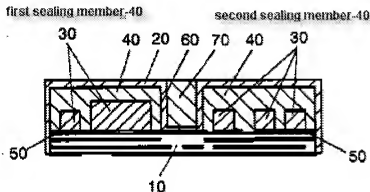
**Regarding Claim 15**,Tsuneoka et al. discloses the partition **70** is higher than an electric component mounted **30** on the substrate **10** (**view fig. 5**).

**Regarding claim 16**, Tsuneoka et al. teaches the substrate **10** has a ground pattern **50** on a surface thereof, and the ground pattern **50** is connected with the first conductive film **20** (**first portion of element 20, on the left in fig. 5**)

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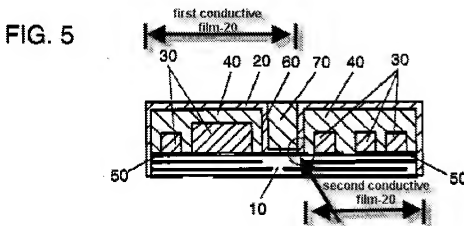
and second conductive film **20** (second portion of element **20**, on the right in fig. 5) ([0018] lines 15-17).

**Regarding claim 17**, Tsuneoka et al. discloses a method for manufacturing a module component having a plurality of circuit blocks shielded individually, the method comprising: a step of mounting a partition **70** made of resin and conductive material [0028] higher than mounting components **30** (fig.5), the partition **70** dividing mounting components and a substrate **10** into a plurality of circuit blocks on the substrate **10**; a step of forming a first sealing member **40** (first portion of element **40**, on the left in fig. 5) covering a first circuit block of the plurality of circuit blocks individually in such a manner as to be higher than the mounting components **30** ; a step of forming a second sealing member **40** (second portion of element **40**, on the right in fig. 5) covering a second circuit block of the plurality of circuit blocks individually in such a manner as to be higher than the mounting components **30**;

**FIG. 5**

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a step of forming a first conductive film 20 (first portion of element 20, on the left in fig. 5) on a surface of the first sealing member 40 (first portion of element 40, on the left in fig. 5) and a step of forming a second conductive film 20 (second portion of element 20, on the right in fig. 5) on a surface of the second sealing member 40 (second portion of element 40, on the right in fig. 5).



Regarding claim 18, Tsuneoka et al. discloses the partition 70 contains a conductive material ([0028], lines 1-9) formed in a direction vertical to the substrate 10 (fig. 5); and the step of forming a first sealing member 40 (first portion of element 40, left region in fig. 5).

Regarding claim 20, Tsuneoka et al. discloses the step of forming a first conductive film 20 (first portion of element 20, on the left in fig. 5) or the step of forming a second conductive film includes a step of connecting the respective conductive film 20 (second portion of element 20, on the right in fig. 5) with a ground pattern 50 (fig. 5; 0026], lines 4-6).

**Regarding claim 21**, Tsuneoka et al. discloses wherein the first and second conductive films **20 (first and second portion of element 20, on the left in fig. 5)** are separated by the partition **70 (fig. 4 & 5; [0023], lines 1-3)**.

**Regarding claim 22**, Tsuneoka et al. discloses wherein the partition **70 [0028]** electrically connects the first conductive film **20 (first portion of element 20, on the left in fig. 5)** with the second conductive film **20 (second portion of element 20, on the right in fig. 5) (view. Fig. 5)**.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 2, 5, & 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tsuneoka (US 2004/0252475 A1)** in view of **Mathews (US Patent 7,049,682 B1)**.

**Regarding claim 2**, Tsuneoka et al. discloses all the claim limitations of claim 1 and further teaches the substrate **10**; the first sealing member, the second sealing member **40 (first and second portion of element 40, in fig. 5)** and the partition **70** contain the same resin **[0028]** but fails to teach that the substrate is made of resin.

However, Mathews et al. teaches the substrate is made of resin (**column 3, lines 37-40**). It would have been obvious to one of ordinary skill in the art at



the time the invention was made to modify the module component of Tsuneoka et al. with the substrate made of resin taught by Mathews et al. since doing so would provide mounting means for electronic components.

**Regarding claim 5**, Tsuneoka et al. teaches the conductive material of the partition **70** is a conductive resin ([0028], lines 1-9).

**Regarding Claim 6**, Tsuneoka et al. discloses all of the claimed limitations from and further teaches the partition **70** is resin having a metal film **20** formed on an outer surface thereof (**fig. 5**) except for having a square cross section in a longitudinal direction. The partition having a square cross section in a longitudinal direction is a matter of design choice where a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the partition was significant. In re Dailey 357 F.2d 669,149 USPQ 47 (CCPA 1966).

**6. Claims 3 & 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tsuneoka (US 2004/0252475 A1)** in view of **Nakatani (US Patent 6,734,542 B2)**.

**Regarding claim 3**, Tsuneoka et al. discloses all the claim limitations of claim 1 but fails to teach wherein the substrate is ceramic; the composition is made of ceramic powder-containing resin and conductive material; and the first sealing member, the second sealing member and the partition contain the same resin.

However, Nakatani et al. teaches the substrate is ceramic **809**; the composition is made of ceramic powder-containing resin and conductive material

(column 16, lines 33-40); and the first sealing member, the second sealing member 805 and the partition 804 contain the same resin (fig. 8; column 16, lines 18-20; column 15, lines 48-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the module component of Tsuneoka et al. with the substrate is ceramic; the composition is made of ceramic powder-containing resin and conductive material; and the first sealing member, the second sealing member and the partition contain the same resin taught by Nakatani et al. since it would be possible to control the thermal conductivity, the coefficient of thermal expansion, and the dielectric constant.

**Regarding claim 22**, Nakatani et al. discloses wherein the partition 804 electrically connects the first conductive film with the second conductive (top and bottom wiring pattern 801) (fig. 8; column 16, lines 18-20 & column 14, lines 8-11).

7. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Tsuneoka (US Pub no. 2004/0252475 A1)** in view of **Percival (US Patent 4,691,434)**.

**Regarding claim 19**, Tsuneoka et al. discloses all of the claimed limitations from claim 17 above but fails to teach a step of removing the conductive material by one of dicing and laser.

However, Percival et al. teaches a step of removing the conductive material by one of dicing and laser (**Abstract, lines 8-14**). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the module component of Tsuneoka et al. with removing the conductive material by

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laser taught by Percival et al. since doing so provides connections to underlying electronic components.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited for disclosing related limitations of the applicant's claimed and disclosed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LATANYA CRAWFORD whose telephone number is (571)270-3208. The examiner can normally be reached on Monday-Friday 7:30 AM -5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 2813

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